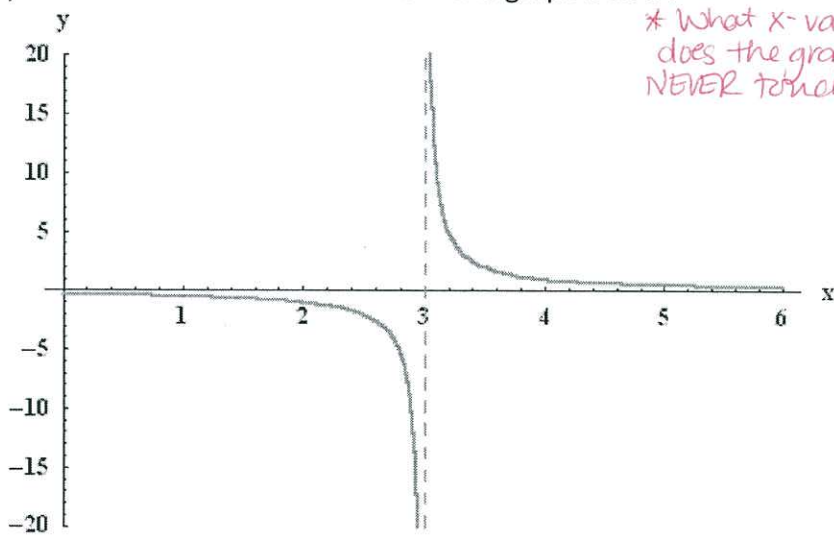


Name: \_\_\_\_\_ TP: \_\_\_\_\_

Failure to show work on all problems or use complete sentences will result in a LaSalle.

<p>1) What value(s) make the expression undefined?  <math>\frac{x^2 + 4x + 3}{x^2}</math>  <i>* What value of x will make the denominator equal to zero?</i></p>	<p>2) When the expression <math>\frac{2x^2}{x-7}</math> is undefined, what is the value of <math>x + 7</math>?  <i>1. What value of x will make the denom = 0?</i>  <i>2. plug that value into x+7</i></p>
<p>3) What value(s) make the expression below undefined?  <math>\frac{x^2 + x - 2}{x^2 + 6x + 8}</math>  <i>1. factor the denom.</i>  <i>2. find solutions (solution are =0, so denom would =0)</i></p>	<p>4) What is the <u>sum</u> of the values that make the expression below undefined:  <i>1. factor denom.</i>  <i>2. Find solutions</i>  <i>3. ADD</i>  <math>\frac{x-2}{x^2 - 3x - 10}</math></p>
<p>5) The expression <math>\sqrt{x-6}</math> undefined for what values of x? (Write as an inequality and graph)  <i>* what values of x would result in a NEGATIVE under the radical?</i>  <math>x-6 = 0</math>  <i>* anything less than the x-value will give a NEG.</i></p> <p>←————→</p> <p>6) The expression <math>\sqrt{2x+6}</math> is undefined for what values of x? (Write as an inequality and graph)  <i>* what values of x would result in a NEG. under the radical?</i>  <math>2x+6 = 0</math>  <i>* anything less than the x-value will give a NEG.</i></p> <p>←————→</p>	<p>7) What is the undefined x-value in the graph below?</p>  <p><i>* What x-value does the graph NEVER touch?</i></p>

PUSH IT TO THE LIMIT.



<p>8) When is the following expression undefined?  <math>\sqrt{3x+27}</math>     <math>3x+27=0</math>     *Same as # 5 + #6</p> <p>a. <math>x \leq -9</math>  b. <math>x \geq -9</math>  c. <math>x &gt; -9</math>  d. <math>x &lt; -9</math>  e. <math>x &gt; 9</math></p>	<p>9) When is the following expression undefined? *Same as # 5, 6, 8  <math>\sqrt{36x-18}</math></p> <p>a. <math>x &gt; 2</math>  b. <math>x &lt; 2</math>  c. <math>x &lt; \frac{1}{2}</math>  d. <math>x &gt; \frac{1}{2}</math>  e. <math>x &gt; -\frac{1}{2}</math></p>
<p>10) What is the <u>product</u> of <math>2x+5</math> and <math>3x-6</math> ?  <math>(2x+5)(3x-6)</math></p>	<p>11) What is the <u>sum of the solutions</u> to the expression:  <math>x^2 - 9x - 22</math> ?</p> <p>a. factor  b. find solutions  c. Add</p>
<p>12) If <math>x(x+3)=0</math>, what are the solution(s) for x?  <math>x=0</math>     <math>x+3=0</math>     *Find the values for x that make the statements true.</p>	<p>13) If <math>x(x-3)=0</math>, what are the solutions for x? *Same as #12</p>
<p>14) If <math>x=3</math>, what is <math>x^2 - 2xy</math> ? *"plug + chug"</p>	<p>15) A projectile that is launched is given by the equation <math>d = -16t^2 + 4t</math>. According to the projectile motion model, the projectile hits the <u>ground</u> when <math>t =</math> ?  ZERO Function</p>

PUSH IT TO THE LIMIT.



Name: \_\_\_\_\_ TP: \_\_\_\_\_

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

1) What value(s) make the expression undefined?

$$\frac{30v - 18}{42v - 54}$$

a. Factor:

$$\frac{6(5v-3)}{6(7v-9)}$$

b. what value for  $v$  will make the denom = 0?2) When the expression  $\frac{3x-8}{2x-18}$  is undefined, what is the value of  $x - 3.5$ ?a. what value of  $x$  makes  $2x-18=0$ ?b. plug in to  $x - 3.5$ 

3) What is the sum of the values that make the expression below undefined?

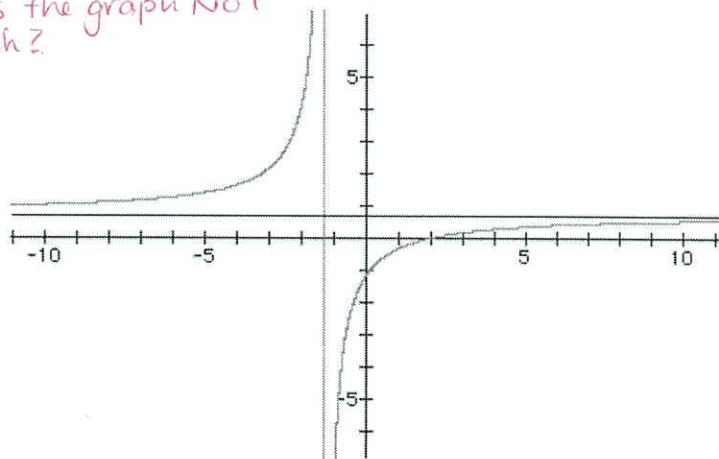
$$\frac{n^2 + 11n + 24}{n^2 + 7n + 12}$$

a. factor the denom  
b. solve  
c. Add4) If  $f(x) = 2x - 5$  and  $g(x) = x^2 - 8$ , evaluate  $g(f(x))$ .\* plug  $f(x)$  into  $g(x)$ 5) The expression  $\sqrt{\frac{1}{2}x - 6}$  undefined for what values of  $x$ ? (Write as an inequality and graph)

$$\frac{1}{2}x - 6 < 0$$

 $\longleftrightarrow$ 6) The expression  $\sqrt{8 - 4x}$  is undefined for what values of  $x$ ? (Write as an inequality and graph)

$$8 - 4x < 0$$

 $\longleftrightarrow$ 7) What is the undefined  $x$ -value in the graph below?\* what value of  $x$  does the graph NOT touch?8) If  $h(x) = -2x - 3$  and  $j(x) = x^2 + 0.5$ , evaluate:a)  $j(h(x))$ plug  $h(x)$  into  $j(x)$ b)  $h \circ j(-3)$ .1. solve  $j(-3)$   
2. plug answer into  $h(x)$ **PUSH IT TO THE LIMIT.**



<p>9) Factor: <math>x^2 + 6x + 8</math></p> <p><u>        </u> <u>        </u></p> <p>(    )(    )</p> <p>FOIL OR BOX to check:</p>	<p>10) What is the sum of the solutions to the expression <math>x^2 - x - 6</math>?</p> <p>a. Factor b. Solve twice c. Add.</p>
<p>11) For what value of x, if any, is the equation <math>(x-3)^2 = (x+1)^2</math>?</p> <p><math>(x-3)(x-3) = (x+1)(x+1)</math></p>	<p>12) Find the solutions to the following equation: <math>x(x-8)=0</math></p> <p><math>x=0</math>      <math>x-8=0</math></p>
<p>13) What is <math>(3x+3)(x-2)</math> equivalent to after using FOIL?</p> <p>show your work!</p>	<p>14) What is the <u>product</u> of <math>3x-2</math> and <math>4x+6</math>?</p> <p><math>(3x-2)(4x+6)</math></p>
<p>15) What is the product of <math>6x-7</math> and <math>8x+2</math>?</p> <p>*same as #14</p>	<p>16) Find the solutions to the following equation: <math>x^2 - 4x - 21</math></p> <p>a. Factor b. solve twice</p>

PUSH IT TO THE LIMIT.

